

REMARKS

Upon entry of the present amendment, claims 1, 3-9, 11-17, 19-25 and 27-31 will remain pending in this application. Claims 2, 10, 18, and 26 were previously canceled. Applicant respectfully submits that no new matter is added by the present amendment. In particular, Applicant respectfully submits that the subject matter added to claims 1, 9, 17, and 25 is supported in the Specification at least at paragraphs [0035]-[0038].

Claims 1, 3-9, 11-17, 19-25 and 27-31 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Warhol Worms: The Potential for Very Fast Internet Plagues published on February 13, 2002, by Weaver (“Weaver”) in view of Simulating and Optimizing Worm Propagation Algorithms published on September 29, 2003, by Vogt (“Vogt”) and further in view of U.S. Patent No. 5,377,207 (“Perlman”).

Interview Summary

Applicant’s representative, Mr. Allen Oh, and Examiner Vivek V. Krishnan participated in a telephonic interview on July 21, 2009 to discuss the claim amendments and remarks herein. Examiner Krishnan agreed to reevaluate the rejections in view of the amendments and remarks herein.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1, 3-9, 11-17, 19-25 and 27-31 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Weaver in view of Vogt and further in view of Perlman. As to claims 1, 9, and 17, the rejection is understood to be based on the premise that Weaver discloses the invention as claimed, except for the limitation of “transferring the data to the another element of the network along with an indication of at least a portion of the addresses remaining in the second set by specifying a range of addresses in the second set of addresses.” Vogt is alleged to disclose this limitation at section 4.4 on page 17. Further, Weaver is alleged to disclose the limitation “wherein traversed addresses of the second set of addresses are excluded from the specified range of addresses” in the section “New Infection Strategies.” While it is conceded that Weaver does not disclose that the mapping function is

based on a primitive element selected using a primitive polynomial, Perlman is cited as disclosing this limitation in the Abstract and at column 13, lines 6-21.

Applicant respectfully traverses the rejection. Claim 1 has been amended to recite the further limitation “dividing a set of non-traversed addresses in the second set of addresses into a plurality of subsets of addresses, each subset of addresses comprising a respective range of addresses in the second set of addresses, wherein addresses in the second set of addresses that have been traversed are excluded from the dividing step and are excluded from the subsets of addresses.” Claims 9 and 17 have been amended to recite similar limitations.

By contrast, while Weaver discloses at page 4, paragraph 7 that “when [the worm] infects another machine, it reduces its range in half with the newly infected worm taking the other section,” Applicant respectfully submits that this does not mean that the newly infected worm takes a range of addresses that excludes the range traversed by the original worm. Rather, Applicant understands the newly infected worm to take half of the range for which the original worm was initially responsible. In other words, Applicant understands the original worm to divide the range of addresses for which it was initially responsible for infecting into two subsets and to assign one subset to the newly infected worm. This behavior does not exclude addresses traversed by the original worm.

Based at least on the above reasoning, Applicant respectfully submits that Weaver fails to disclose at least the limitation “dividing a set of non-traversed addresses in the second set of addresses into a plurality of subsets of addresses, each subset of addresses comprising a respective range of addresses in the second set of addresses, wherein addresses in the second set of addresses that have been traversed are excluded from the dividing step and are excluded from the subsets of addresses” and the similar limitations recited in claims 9 and 17 as amended above, whether considered individually or in combination with Vogt and Perlman. Accordingly, claims 1, 9, and 17 are patentable over Weaver in view of Vogt and further in view of Perlman.

Claims 3-8, 11-16, and 19-24 depend from claims 1, 9, and 17, respectively, and are also patentable over Weaver in view of Vogt and further in view of Perlman at least by reason of this dependency. Claim 28 also depends from claim 1 and is also patentable over Weaver in view of Vogt at least by reason of this dependency.

Claims 25 and 27-31 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Weaver in view of Vogt and further in view of Perlman. As to claim 25, the rejection is understood to be based on the premise that Weaver discloses the claimed limitations, except for the limitation of the mapping function being based on powers of a primitive element. Perlman is cited as disclosing this limitation in its Abstract and at column 13, lines 6-21.

Applicant respectfully traverses the rejection. Claim 25, as amended, is directed to a method for distributed computing propagation. At an act (a), a sequential first set of network addresses is determined. At an act (b), a map of ranges in the sequential first set of network addresses is mapped to a second set of addresses wherein the second set of addresses is a one to one pseudo-random mapping of the range of addresses in the first set and wherein the addresses in the second set are not in increasing address order, wherein the mapping is a function based on powers of a primitive element selected using a primitive polynomial. At a step (c), a plurality of addresses in the second set of addresses is traversed to locate at least two other elements of the network. At a step (d), the addresses of the second set of addresses that were not traversed in act (c) are subdivided into a plurality of portions. Addresses of the second set of addresses that were traversed in act (c) are excluded from the portions. At a step (e), a set of computer readable instructions is transferred to the at least two other elements of the network to carry out a distributed computing function. At a step (f), an indication of each portion of the addresses remaining in the second set is transferred by specifying a range of addresses in the each portion along with a set of computer-readable instructions for carrying out acts (a) through (e) to a respective element of the at least two other elements.

Thus, in the method of claim 25, as in claims 1, 9, and 17, addresses of the second set of addresses that were already traversed are excluded from the portions that are generated at step (d). As discussed above in connection with claim 1, however, Weaver does not disclose the limitation “wherein traversed addresses of the second set of addresses are excluded from the specified range of addresses,” either in the section “New Infection Strategies” or elsewhere. While Weaver discloses a worm that “reduces its range in half with the newly infected worm taking the other section,” Applicant respectfully submits that this does not mean that the newly infected worm takes a range of addresses that excludes the range

traversed by the original worm. Rather, Applicant understands the newly infected worm to take half of the range for which the original worm was initially responsible. In other words, Applicant understands the original worm to divide the range of addresses for which it was initially responsible for infecting into two subsets and to assign one subset to the newly infected worm. This behavior does not exclude addresses traversed by the original worm.

Vogt is cited as allegedly disclosing the limitation “subdividing the addresses of the second set of addresses that were not traversed in act (c) into a plurality of portions, wherein addresses of the second set of addresses that were traversed in act (c) are excluded from the portions” at section 4.4. It is alleged that this limitation is disclosed in that the range of addresses sent is the addresses the parent traversed plus 1, *i.e.*, the traversed addresses are excluded. However, Applicant respectfully submits that Vogt discloses that “each child will inherit the net-mask from its parent +1, centered on itself.” While it is true that this net-mask will exclude the parent itself, it will not exclude any other addresses that the parent traversed. Accordingly, Applicant respectfully submits that Vogt fails to disclose the limitation “wherein **addresses** of the second set of addresses that were traversed in act (c) are excluded from the portions” (note the plural “addresses”), whether considered individually or in combination with Weaver and Perlman.

In addition, claim 25 recites further limitations that are not recited in the other independent claims and that further distinguish claim 25 from the prior art of record. For at least these reasons, Applicant respectfully submits that claim 25 is patentable over Weaver in view of Vogt and further in view of Perlman. Claims 27 and 29-31 depend from claim 25 and are also patentable over Weaver in view of Vogt and further in view of Perlman.

Based at least on the above remarks, Applicant respectfully submits that the currently pending claims are patentable over the prior art of record and requests reconsideration and removal of the rejections under 35 U.S.C. § 103(a).

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CONCLUSION

In view of the above amendments and remarks, Applicant respectfully submits that the present application is in condition for allowance. Reconsideration of the application is respectfully requested.

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